

REMARKS

Claims 1-25 and 35 are pending in the present application. Claims 13, 20, and 25 stand rejected.

Telephonic Examiner Interview

Examiner Canh Le and the undersigned conducted a telephonic interview on August 11, 2009. The examiner agreed to withdraw the rejection to “the resistance” in line 1 of claim 4 under 35 USC 112, second paragraph for the below reasons. Applicants note that line 2 of claim 5, as amended, contains the same language, and respectfully submit that this language is sufficient under 35 USC 112, second paragraph, as well, for the same reasons. No other agreement was reached as to the claims.

Applicants thank the examiner for the interview. Should the examiner wish to discuss any aspect of the present application further, the undersigned is readily available via telephone at (206) 903-2467.

Claim Objections

The examiner has objected to claims 13, 20 and 25, stating that claim 13 at line 15 should read “, a resistance” rather than “, resistance” (note: the examiner used the form “, resistance” should replace “, a resistance” for all of the present objections, but as it is the former language that appeared in the prior reply, applicants will proceed as if the terms were reversed in these sentences), that claim 20 at line 1 should read “said assurance policy” rather than “said policy,” and that claim 25 at line 31 should read “the first software environment” rather than “the first environment.” Applicants have made all such claim amendments.

Claim Rejections – 35 USC § 112

The examiner states that claims 1-22 stand rejected under 35 USC 112, first paragraph, for lack of enablement. However, the examiner makes a specific rejection as to only claim 1 (on its own merits), and claims 2-12 (for depending from claim 1), so applicants will proceed under the impression that only claims 1-12 are so rejected.

Specifically, the examiner states, “the specification does not enable one having ordinary skill in the art to make and/or use an invention that creates a wrapper for data, when the wrapper includes a software object (which, as defined by the claim, is an executing software application).”

Applicants have amended the claim to read, in part, “said corresponding wrapper comprising an indication of said second software object and a seal,” which is the embodiment that they intend to prosecute in this claim of the present application. In making this amendment, applicants do not concede the propriety of the present rejection. It is known in the art that a microprocessor operates on chunks of binary code. That code may comprise data or it may comprise executable instructions. Either way, the microprocessor processes the binary data the same way – it takes a chunk of it (e.g. 32 bits) and then executes it. As a microprocessor does not discriminate between data and executable instructions in performing its processing, it is not necessary to discriminate between the two in the present circumstances.

Applicants respectfully submits that the present amendments overcome the present rejections as to claims 1-12.

The examiner states that claims 1-12, and 23-25 stand rejected under 35 USC 112, second paragraph, for being indefinite.

The examiner states that “said base environment” recited in claim 1 is indefinite. Applicants have amended that language to read “said base component.” The examiner states that “said second software processing” recited in claim 1 is indefinite. Applicants have amended that language to read “said second software object processing.” The examiner states that “the operation” recited in claim 1 lacks antecedent basis. Applicants have amended that language to read “an operation.”

The examiner finds further lack of antecedent basis for the following claim language: “the content” in claim 3, “the signature” in claim 7, “the behavior” in claim 10, “the second software environment” in claim 13, “the result” in claim 13, “the input” in claim 19, “the behavior” in claim 23, “the behavior” in claim 24, “said first software object” in claim 25, “the first software environment” in claim 25, “the second software environment” in claim 25, “the result” in claim 25, “the second computing environment” in claim 25, and “the first computing environment” in claim 25.” Applicants have made claim amendments to address all of these rejections.

The examiner states that “said specification” in claim 23 lacks antecedent basis because “it is unclear ... as to whether refer to ‘first specification’ or ‘second specification.’” Applicants have amended the claim to recite “said first specification,” but also respectfully disagree, and note that “second specification” does not appear prior to that recitation, only “first specification,” making it clear to one skilled in the art that “said specification” refers to the only specification previously mentioned, the “first specification.”

The examiner states that both claims 4 and 5 lack antecedent basis for reciting “the resistance.” Applicants respectfully disagree. Both depend from claim 1, which recites, “in a manner that *resists* tampering,” (emphasis added). Applicants are using a single word in multiple forms because it is grammatically correct to do so. Nevertheless, the change in the word form is still definite under MPEP 2713.05(e), which sets the standard for definiteness as, “if the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite.”

Claim Rejections – 35 USC § 112

Claims 13-24 and 35 stand rejected under 35 USC 101. Applicants have amended claim 13 to recite that the method is “executing on a computer.” Applicants respectfully submit that this amendment overcomes the present rejection of claim 13, as well as the present rejections of claims 14-24 and 35.

Claim Rejections – 35 USC § 103

Claims 1, 5-14, 19-20, 23-25 and 35 stand rejected under 35 USC 103(a) as being unpatentable over Muschellack et al. (Pat. No. 7,309,004) in view of Garfinkel et al. (“Terra: A Virtual Machine-Based Platform for Trusted Computing”, SOSP ’03, ppg. 1-14, October 19-22, 2003).

Claims 2-4 and 15-18 stand rejected under 35 USC 103(a) as being unpatentable over Mushellack in view of Garfinkel, further in view of Clapper (Pub. No. 2003/0107584).

Claims 21-22 stand rejected under 35 USC 103(a) as being unpatentable over Mushellack in view of Garfinkel, further in view of Hayman et al. (Pat. No. 5,894,966).

Claim 1, as amended, recites, “said first software object sending said first of said plurality of data to said base component environment” and “second software object receiving said first of said plurality of data from said base component with a corresponding wrapper, said second software object verifying said first of said plurality of data as being unmodified by comparing said data to the corresponding wrapper, said second software object processing said first of said plurality of data in a manner that resists tampering with said first of said plurality of data, said second software object sending said processed data to said base component.”

The examiner states that the second quotation is taught by Garfinkel at sections 2.1, 3.1, and 4.6, and Fig. 1. Applicants respectfully disagree.

Garfinkel appears to disclose executing a plurality of virtual machines on a “trusted virtual machine monitor,” which “[authenticates] the software running in a VM to remote parties,” Garfinkel, section 2.0 and Fig. 1. It further discloses that a “trusted OS” running on one of those VMs can securely store data by encrypting data with a private key of a tamper-resistant coprocessor and includes a hash of the trusted OS with the encrypted data. This makes it that only the trusted OS that stored the data may later access that data: “The coprocessor will only allow a trusted OS with the same hash that sealed data to unseal it,” Garfinkel, section 4.6.

While Garfinkel teaches a single OS encrypting data that that single OS later retrieves, the present claim language claims that a first software object sends data through the

base component to a second software object. Garfinkel fails to disclose sending data between OSeS in such a manner. Even if Garfinkel did disclose sending data between OSeS in such manner, the second OS that received the data could do nothing with it, since only the OS that encrypted the data may unencrypt it. Applicants respectfully submit that Garfinkel fails to teach or disclose this claim language.

Claim 1 further recites, “said base component comprising or hosting logic that receives said first of said plurality of data from said first software object, applies the corresponding wrapper to said first of said plurality of data, *said corresponding wrapper comprising an indication of said second software object* and a seal that may be checked against said first of said plurality of data to determine whether said first of said plurality of data has been altered since the seal was determined...” (emphasis added).

The examiner states that the second quotation is taught by Garfinkel at sections 2.1, 3.1, and 4.6, and Fig. 1. Applicants respectfully disagree.

The examiner rejected the unamended, italicized portion of the claim language under 35 USC 112, first paragraph, for lack of enablement. It may be then that the examiner read that language out of the claim and did not examine it under 35 USC 103. Regardless of whether or not the examiner examined it under 35 USC 103, applicants respectfully submit that Garfinkel fails to teach or suggest the italicized language. For the reasons above, Garfinkel does not disclose sending data between OSeS, and thus does not teach wrapping data with an indication of the destination OS (the second software object, above).

Further, applicants respectfully submit that Muschellack fails to teach or suggest those portions of the claim neither taught nor suggested by Garfinkel. For at least these reasons, applicants respectfully submit that claim 1 is in condition for allowance. Applicants respectfully submit that dependent claims 2-12 are in condition for allowance for at least the reasons that claim 1 is in condition for allowance.

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Applicants respectfully submit that claims 13 and 25 are in condition for allowance for at least the reason that they recite similar limitations as claim 1. Further, applicants respectfully submit that dependent claims 14-24 and 35, are in condition for allowance for at least the reasons that claims 13 is in condition for allowance.

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